Mecklenburg Co.

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JAMES B. HUNT JR GOVERNOR

WAYNE MCDEVITT SECRETARY

WILLIAM L. MEYER
DIRECTOR

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

September 25, 1998

Mr. Ronald C. Gilkerson North Mecklenburg Landfill 15300 Holbrooks Road Huntersville, N.C. 28078

RE: Water Quality Monitoring Data - North Mecklenburg Landfill (Permit # 60-13)

Dear Mr. Gilkerson:

Attached is a summary of the analytical data from the above referenced landfill for your use and review compiled in response to our telephone conversation on September 21, 1998. The summary includes analytes with detected concentrations exceeding North Carolina water quality standards from all monitoring reports received by the Solid Waste Section to date.

The detection of elevated concentrations of metals in ground water does not necessarily indicate the presence of a contaminant release from a waste disposal site. Turbid samples collected with suspended fine grained sediments and preserved with acid sometimes have misleading elevated metals concentrations when analyzed.

Since turbidity readings have not been included as part of monitoring reports, the effect that excess turbidity has had on the results is not known. Due to the use of bailers at the site to purge wells and collect samples some turbidity would be expected. At this time there appears to be no pattern or trend in the metals data and all are in concentrations only slightly above standards.

The September 12, 1994 sampling data reported chloroform and 2-butanone from MW-10 at concentrations above their standards. Acetone and toluene were also reported but at levels below the standards. A repeat sampling event for MW-10 took place on October 11, 1994. Toluene was again detected but at a lower concentration. Organic compounds were not detected in MW-10 or any other well in any other sampling event.

Without additional information an explanation for the detection of these organic compounds is difficult. The data may accurately reflect contaminated ground water or the samples could have been cross-contaminated from another source.

Because analytical detection limits are in the parts per billion range it is of utmost

importance that water quality monitoring be done properly and according to established protocol. Adequate quality assurance and quality control should always be a part of monitoring events to help insure the data accurately represents conditions at the site.

If you have any questions or comments, please call me at (919) 733-0692, extension 257.

Sincerely,

Larry Rose

Environmental Specialist Solid Waste section

cc: Philip Prete - Head, Field Operations Branch Julian Foscue - Western Area Supervisor Rick Doby - Waste Management Specialist Central Files

North Mecklenburg Landfill Water Quality Monitoring Summary

<u>Date</u>	Monitoring Well	Analyte Exceeding Standard	Concentration (ppb)	Standard (ppb)	
07-17-98	MW-5	Cadmium	14	5	
03-20-98	MW-5	Cadmium	14	5	
	MW-10	Cadmium	6	5	
07-18-97	MW-10	Chromium	56	50	
		Lead	19	15	
04-11-97	Concentration	Concentrations of all analytes below respective standard.			
08-02-96	Concentration	Concentrations of all analytes below respective standard.			
09-12-94	MW-1	Chloroform	6	0.19	
	MW-3	Lead	46	15	
	MW-4	Lead	36	15	
	MW-5	Lead	16	15	
	MW-10	2-Butanone	190	170	
01-19-94	MW-1	Arsenic	61	50	
		Selenium	114	50	
		Lead	31	15	
	MW-5	Arsenic	131	50	
		Selenium	124	50	
		Lead	49	15	
07-23-93	MW-1	Selenium	204	50	
	MW-4	Lead	200	15	
	MW-5	Lead	16	15	
		Nickel	110	100	